

REMARKS

No claims have been amended, added or cancelled. Claims 1-66 and 103-187 remain pending in the application. Reconsideration is respectfully requested in light of the following remarks.

Section 102(a) Rejection:

The Examiner rejected claims 1-66 and 103-187 under 35 U.S.C. 102(a) as being anticipated by Hild, Stefan G. (EP 1022876) (hereinafter “Hild”). Applicants respectfully traverse this rejection for at least the following reasons.

Regarding claim 1, contrary to the Examiner’s assertion, Hild fails to disclose a peer node operable to obtain a pipe advertisement describing a pipe that represents a virtual communications channel for communicating with one or more of the plurality of peer nodes on the network, and where the pipe advertisement specifies a pipe type for which a network interface of another peer node implements a particular network transport protocol that supports the pipe type. Instead, Hild teaches a system for exchanging service information with other devices using an ad hoc network (paragraphs [0039 – 0041]). The advertisements used in Hild’s system are for services, such as a printing service (see [0034]), and have nothing to do with pipe advertisements that describe a representation of a virtual communication channel for communicating with another peer, as recited in applicants’ claim 1. The Examiner cited paragraphs describe how devices in Hild’s system periodically broadcast advertisements that include service information known to the sending device. However, Hild’s service information only identifies “*services of which the transmitting device is aware*” (emphasis added, Hild, paragraph [0038]). Hild’s service information does not include any information that may be considered a pipe advertisement describing a pipe, where the pipe represents *a virtual communications channel* for communicating with other peer nodes. Instead, Hild describes his service information as identifying a type of service, such as a printing service, using service identifiers and including service options, such as what printer trays

hold which sized paper (Hild, paragraph [0034]). Thus, the service information broadcast by devices in Hild's system describes available services, not pipes that represent virtual communications channels. Hild is concerned with advertising various services that are known to devices in his system, but is clearly not concerned with advertisement information regarding virtual communications channels for communicating with peer nodes on a network. Hild merely states that his invention "can be used on any kind of network topology allowing broadcast" with describing any particular method for establishing communication between his devices.

Furthermore, Hild's advertisements and service information also do not include information specifying a pipe type for which a network interface of another peer node implements a particular network transport protocol that supports the pipe type. As noted above, Hild is not concerned with pipe advertisements that specify a type of virtual communications channel. Hild does not describe his service information as specifying any type of virtual communication channel. The Examiner cites FIGs. 2A-F and paragraphs [0021-0022], [0035], and [0038-0039]. However, none of these cited portions mentions anything about Hild's advertisements or other service information specifying a pipe type or any other type of virtual communications channel, as recited in applicants' claim 1. Instead, FIGs. 2A-F illustrate how two devices exchange and update service information, but the service information illustrated in FIGs 2A-F does not include any information specifying a pipe type or any type of virtual communication channel. The paragraphs cited by the Examiner describe the broadcasting of service information over an ad-hoc network and how Hild's service information includes expiration times or dates for the individual services. Nowhere does Hild mention anything about a pipe advertisement specifying a pipe type for which a network interface of another peer node implements a particular network transport protocol that supports the pipe type.

Further regarding claim 1, Hild also fails to disclose binding the pipe advertisement to one of the one or more endpoints on the particular peer node, wherein the endpoint of the other peer node corresponds to a network interface of the peer node that implements a particular network transport protocol that supports the pipe type, in

contrast to the Examiner's contention. As noted above, Hild is not concerned with how devices communicate other than to exchange advertisements. Hild does not teach that his devices bind received service information to an endpoint of a peer node that corresponds to a network interface of the peer node that implements a network transport protocol supporting the pipe type. The Examiner again cites FIGs. 2A-F and paragraphs [0021-0022], [0035], and [0038-0039]. However, as noted above, none of these cited portions mentions anything regarding how Hild's device may establish communication with another device other than to exchange service information by broadcast.

Furthermore, Hild fails to disclose the peer node communicating with another peer node over the pipe in accordance with the particular network transport protocol that supports the pipe type, as recited in claim 1. As noted above, Hild is not concerned with advertising pipes that represent virtual communication channels for communicating with peer nodes. Similarly, Hild is silent regarding a peer node communicating with another peer node over a pipe in accordance with a particular network transport protocol. In fact, Hild is completely silent regarding how two devices communicate other than when exchanging Hild's service information or advertisements. The Examiner cites paragraphs [0020-0022], [0029] and [0041] of Hild. However, each of these paragraphs describes devices exchanging Hild's service information, not communicating over a pipe described in an advertisement and in accordance with a particular network transport protocol. Instead, the Examiner's cited paragraphs merely state that devices in Hild's system broadcast and receive service information over an ad-hoc wireless local area network and that each device updates its own stored service information according to any received service information. Nowhere does Hild describe one of his devices communicating with another device over a pipe that was described in an advertisement.

Applicants remind the Examiner that anticipation requires the presence in a single prior art reference disclosure of each and every limitation of the claimed invention, arranged as in the claim. M.P.E.P 2131; *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984). The identical invention must be shown in as complete detail as is contained in the claims. *Richardson v. Suzuki Motor*

Co., 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). As discussed above, Hild fails to disclose a peer node operable to obtain a pipe advertisement describing a pipe, where the pipe represents a virtual communications channel for communicating with one or more of the plurality of peer nodes on the network, and where the pipe advertisement specifies a pipe type. Hild further fails to disclose binding the pipe advertisement to one of the one or more endpoints on the particular peer node, wherein the endpoint of the other peer node corresponds to a network interface of the peer node that implements a particular network transport protocol that supports the pipe type and communicating with another peer node over the pipe in accordance with the particular network transport protocol. Therefore, Hild cannot be said to anticipate claim 1.

Thus, for at least the reasons presented above, the rejection of claim 1 is not supported by the prior art and removal thereof is respectfully requested. Remarks similar to those above regarding claim 1 also apply to claims 44, 103, and 146.

Regarding claim 137, contrary to the Examiner's assertion, Hild fails to disclose a peer node receiving a message from another peer node on the peer-to-peer network in accordance with a pipe binding protocol, where the message identifies a pipe and specifies a network transport protocol of the pipe, where the pipe represents a virtual communications channel for communicating between the other peer node and one or more other peer nodes on the peer-to-peer network. As described above regarding the rejection of claim 1, Hild teaches a system for devices to broadcast and receive lists of known services using an ad-hoc local network. Hild's advertisements and service information does not include, nor are they relevant to, receiving a message that identifies a pipe and that specifies a network transport protocol for the pipe.

The Examiner relies upon paragraphs [0038 – 0039] and [0041] of Hild (regarding the rejection of claim 6). However, the paragraphs cited by the Examiner describe the broadcasting of service information over an ad-hoc network and how Hild's service information includes expiration times or dates for the individual services. The

cited paragraphs do not mention receiving a message in accordance with a pipe binding protocol where the message identifies a pipe and specifies a network transport protocol of the pipe. As noted above, Hild is not concerned with specifying pipes that represent virtual communications channels or about specifying network transport protocols of pipes. Hild is concerned only with broadcasting and receiving advertisements of services known to devices using Hild's ad-hoc network.

Further regarding claim 137, Hild also fails to disclose the peer node obtaining information specifying an endpoint of a different peer node on the peer-to-peer network, where the endpoint of the different peer node corresponds to and uniquely identifies a network interface of the different peer node and where the network interface of the different peer node implements the network transport protocol of the pipe. The Examiner fails to cite any portion of Hild regarding this limitation of claim 137. Instead, the Examiner merely states that claims 103 – 145 are rejected for similar reasons as claims 1-43 and claims 44-66. However, none of claims 1-43 or claims 44-66 recite this specific limitation of claim 137. Thus, the Examiner has failed to provide a prima facie rejection of claim 137. Furthermore, Hild is completely silent regarding obtaining information specifying an endpoint of a different peer node that corresponds to and uniquely identifies a network interface of the different peer node that implements the network transport protocol of the pipe.

Hild also fails to disclose the peer node sending a response message to the other peer node in accordance with the pipe binding protocol, where the response message specifies the endpoint of the different peer node. The Examiner (regarding the rejection of claim 6) cites paragraphs [0059-0061] of Hild. However, these paragraphs only describe two of Hild's devices exchanging service information by periodically broadcasting advertisements, but fail to mention anything about sending a response message in accordance with a pipe binding protocol that specifies an endpoint of a different peer node. Instead, the Examiner cited paragraphs describe two devices exchanging service information and updating their respective timeout values and expiration times.

As with claim 1, described above, Hild fails to disclose each and every limitation of claim 137. As anticipation requires the presence in a single prior art reference disclosure of each and every limitation of the claimed invention, arranged as in the claim, Hild cannot be said to anticipate claim 137. Thus, for at least the reasons presented above, the rejection of claim 137 is not supported by the prior art and removal thereof is respectfully requested. Remarks similar to those above regarding claim 137 also apply to claim 179.

Applicants also assert that numerous ones of the dependent claims recite further distinctions over the cited art. However, since the rejection has been shown to be unsupported for the independent claims, a further discussion of the dependent claims is not necessary at this time.



CONCLUSION

Applicants submit the application is in condition for allowance, and notice to that effect is respectfully requested.

If any extension of time (under 37 C.F.R. § 1.136) is necessary to prevent the above-referenced application from becoming abandoned, Applicants hereby petition for such extension. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5681-07500/RCK.

Also enclosed herewith are the following items:

- ☒ Return Receipt Postcard
- ☐ Petition for Extension of Time
- ☐ Notice of Change of Address
- ☐ Other:

Respectfully submitted,

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